LISTING OF THE CLAIMS:

This listing of the claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A method for modulating flowering in a plant, comprising modifying in said plant the endogenous level of at least one compound selected from the group consisting of 12-hydroxyjasmonic acid, glucoside of 12-hydroxyjasmonic acid, sulfate ester of 12-hydroxyjasmonic acid, 12-hydroxymethyljasmonic acid, glucoside of 12-hydroxymethyljasmonic acid, sulfate ester of 12-hydroxymethyljasmonic acid, 11-hydroxyjasmonic acid, glucoside of 11-hydroxyjasmonic acid, sulfate ester of 11-hydroxyjasmonic acid, 11-hydroxymethyljasmonic acid, glucoside of 11-hydroxymethyljasmonic acid, sulfate ester of 11-hydroxymethyljasmonic acid, and mixtures thereof, wherein the endogenous level of at least one compound is modified by modulation the expression of a sulfotransferase encoded by a gene of SEQ ID NO:1.

2. (Currently Amended) ~~The method of claim 1, wherein flowering of said plant is induced by increasing in said plant the endogenous level of at least one flowering inducing~~ A method for inducing flowering in a plant, comprising increasing in said plant the endogenous level of at least one compound selected from the group consisting of 12-hydroxyjasmonic acid, glucoside of 12-hydroxyjasmonic acid, methyljasmonic acid, 12-hydroxymethyljasmonic acid, glucoside of 12-hydroxymethyljasmonic acid, 11-hydroxyjasmonic acid, glucoside of 11-hydroxyjasmonic acid, 11-hydroxymethyljasmonic acid, and glucoside of 11-hydroxymethyljasmonic acid, and mixtures thereof, wherein the endogenous level of at least one compound is increased by reducing the endogenous activity of a sulfotransferase encoded by a gene of SEQ ID NO:1 ~~said flowering induction and said endogenous level increase being compared to a corresponding plant wherein the endogenous level of said at least one compound has not been modified~~.

3. - 5. (Cancelled

6. (Currently amended) The method of claim 2 ~~5~~, wherein the sufotransferase has an amino acid sequence having at least 70% similarity with SEQ ID NO: 3 ~~said genetic modification comprises the step of inhibiting the expression of at least one gene selected from the group consisting of *AtST2a*, *AtST2b* and functional homologues of *AtST2a* or of *AtST2b*~~.

7. (Currently amended) The method of claim 2 ~~6~~, wherein ~~said gene expression is inhibited~~ reducing the endogenous activity of a sulfotransferase encoded by a gene of SEQ ID NO:1 is by expressing into said plant an exogenous sequence coding for a nucleic acid sequence antisense to said gene.

8. (Original) The method of claim 7, wherein said exogenous sequence is expressed under the control of a constitutive or an inducible promoter.

9. (Currently amended) The method of claim 2 ~~5~~, wherein said plant is transgenic.

10. – 42. (Cancelled)

43. (Currently amended) A method for producing a transgenic plant capable to flower early, said method comprising the steps of:

a) introducing into a cell of a suitable plant an exogenous nucleic acid molecule comprising a sequence of nucleotides antisense to a ~~sequence~~ nucleic acid sequence coding for an amino acid sequence having at least 70% similarity with SEQ ID NO:3 encoding a plant hydroxyjasmonic acid sulfotransferase;

b) regenerating a transgenic plant from the cell; and

c) growing said transgenic plant for a time and under conditions sufficient to inhibit expression of the hydroxyjasmonic acid sulfotransferase.

44. – 46. (Cancelled)

47. (Original) The method of claim 43, wherein the hydroxyjasmonic acid sulfotransferase is a 11- or a 12- hydroxyjasmonic acid sulfotransferase.

48. – 51. (Cancelled)

52. (New) The method of claim 43, further comprising the step of applying to a plant at least one flowering inducing compounds selected from the group consisting of 12-hydroxyjasmonic acid and 11-hydroxyjasmonic acid.

53. (New) The method of claim 43, further comprising the step of applying to said plant at least one inhibitor of a sulfotransferase having an amino acid sequence with at least 70% similarity with SEQ ID NO: 3.

54. (New) The method of claim 43, further comprising the step of increasing in said plant the endogenous level of an hydroxylase hydroxylating jasmonic acid and/or methyljasmonic acid.

55. (New) The method of claim 43, further comprising the step of lowering in said genetically modified plant the endogenous level of a sulfotransferase having an amino acid sequence with at least 70% similarity with SEQ ID NO: 3.

56. (New) The method of claim 43, further comprising the step of inhibiting in said plant the expression of at least one gene selected from the group consisting of *AtST2a* and its functional homologues.

57. (New) The plant genetically modified to flower early wherein the plant is obtained by the method of claim 43.

58. (New) A cut flower from the genetically modified plant of claim 57.